

CLAIMS

1. (Currently Amended) A method for fault management in a distributed network management station comprising:

initiating a first device coupled to a network, ~~wherein said first device comprises at least one of a single processing element device, a computing system, or a blade type computing system compliant with a compact peripheral component interconnect (PCI) chassis;~~

determining a status of the first device as a master device of the network or a slave device of the network by:

broadcasting, from ~~said~~ the first device, an information packet ~~describing said first device to a plurality of devices coupled to~~ over the network, the information packet indicating whether the first device had a prior status as a master device, wherein said information packet helps define one of said first device and said devices as a master device for said network;

listening, at ~~said~~ the first device, for one or more responses to ~~said~~ the information packet from ~~said~~ one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices; and

resolving the status of said the first device as the master device or slave device of the coupled to said network based, at least in part, on any responses received from the one or more second devices coupled to the network, wherein said resolving results in said distributed network management station having said defined master device being one of said first device and said devices.

2. (Currently Amended) The method as recited in Claim 1, wherein said first device initiates as a ~~secondary~~ slave device.

3. (Original) The method as recited in Claim 1, wherein said information packet comprises a participating-device internet protocol (IP) of said first device.

4. (Original) The method as recited in Claim 3, wherein said information packet also comprises a participating-device message authentication code (MAC) of said first device.

5. (Currently Amended) The method as recited in Claim 1 3, further comprises determining the first device is the master of the network when no responses were received to the information packet ~~wherein said information packet further comprises information regarding the previous state of said first device.~~

6. (Currently Amended) The method as recited in Claim 1 3, wherein said information packet additionally comprises information regarding a current state of said first device as a slave device of the network, and
determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

7. (Currently Amended) The method as recited in Claim 1 3, further comprises:
comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second devices is not currently the master device of the network according to the received responses;
determining the first device is the master device of the network or a slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices ~~wherein said information packet further comprises information regarding a total system-up-time of said first device.~~

8. (Currently Amended) The method as recited in Claim 7 4,
wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices;
comparing the total system-up-times of the and the one or more second devices when the master device of the network could not be determined from the comparison prior status of the first device with the prior status of the one or more second devices;

determining the first device is the master device of the network or a slave device of the network according to the comparison of the total system-up-times wherein said status between said first device and said plurality of devices is resolved by an evaluation of each said information packet from said first device and said plurality of devices.

9. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates plug-and-play capability of each of the plurality of devices into said network.

10. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates scalability of each of the plurality of devices into said network.

11. (Original) The method as recited in Claim 1, wherein said distributed network management station integrates self-healing capabilities of each of the plurality of devices into said network.

12. (Current Amended) A method for fault management in a distributed network management station comprising:

initiating a first device coupled to a network; ~~said first device initiating as a secondary device, wherein said first device comprises at least one of a single processing element device, a computing system, or a blade type computing system compliant with a compact peripheral component interconnect (PCI) chassis;~~

determining a status of the first device as a master device of the network or a slave device of the network by:

broadcasting, from said the first device, an information packet ~~describing said first device to a plurality of devices coupled to~~ over the network, the information packet indicating whether the first device had a prior status as a master device, wherein said information packet helps define one of said first device and said devices as a master device for said network;

listening, at said the first device, for one or more responses to said the information packet from said one or more second devices coupled to the network, the one or more

responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices;

resolving the status of ~~said~~ the first device as the master device or slave device of the ~~coupled to said~~ network based, at least in part, on any responses received from the one or more second devices coupled to the network, wherein ~~said resolving results in said distributed network management station having said defined master device being one of said first device and said devices;~~ and

initiating a fail-over process, wherein said fail-over process results in said secondary devices re-evaluation of said master device.

13. (Previously Presented) The method as recited in Claim 12, wherein said information packet broadcast by said first device further comprises:

transmitting a participating-device internet protocol (IP) of said first device; transmitting a participating-device message authentication code (MAC) of said first device;

transmitting information regarding the previous state of said first device; transmitting information regarding the current state of said first device; and transmitting information regarding the total system-up-time of said first device.

14. (Currently Amended) The method as recited in Claim 12,
wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices;

comparing the total system-up-times of the and the one or more second devices;

determining the first device is the master device of the network or a slave device of the network according to the comparison of the total system-up-times ~~wherein said status between said first device and said plurality of devices is resolved by an evaluation of each said information packet from said first device and said plurality of devices.~~

15. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates plug-and-play capability of each of the plurality of devices into said network.

16. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates scalability of each of the plurality of devices into said network.

17. (Original) The method as recited in Claim 12, wherein said distributed network management station integrates self-healing capabilities of each of the plurality of devices into said network.

18. (Original) The method as recited in Claim 12, wherein said secondary devices re-evaluation occurs due to a loss of communication with said master device.

19. (Original) The method as recited in Claim 18, wherein said secondary devices re-evaluation comprises questioning said master device for state or status.

20. (Previously Presented) The method as recited in Claim 19, wherein said state or status of said master device comprise at least one of said master device in a paused state, said master device in a crashed state, transmission control protocol (TCP) disconnect from said master device, and overall loss of master device.

21. (Currently Amended) A computer system comprising:
a bus;
a memory unit coupled to said bus; and
a processor coupled to said bus, said processor for managing faults in a distributed network management station that comprises:
a first device coupled to a network, said first device initiating as a secondary device,
~~wherein said first device comprises at least one of the single processing element device, a computer system, or a blade type computer system compliant with a compact peripheral component interconnect (PCI) chassis;~~

an information packet describing said first device broadcast from said first device to a plurality of devices coupled to the network, the information packet indicating whether the first device had a prior status as a master device ~~wherein said information packet helps define one of said first device and said devices as a master device for said network;~~

responses to said information packet, said responses broadcast from one or more of said devices, the one or more responses indicating a current state of the corresponding devices as either master or slave devices of the network, and a prior status of the corresponding devices as master devices;

said ~~defined~~ master device and at least one secondary device, wherein said ~~defined~~ master device is at least one of said first device and said devices, wherein said master device is defined based, at least in part, on said information packet and said responses; and

a fail-over process, wherein said fail-over process results in said secondary device re-evaluating said master device.

22. (Previously Presented) The computer system of Claim 21, wherein said information packet comprises at least one of:

- a participating-device internet protocol (IP) of said first device;
- a participating-device message authentication code (MAC) of said first device;
- information regarding the previous state of said first device;
- information regarding the current state of said first device; and
- information regarding the total system-up-time of said first device.

23. (Original) The computer system of Claim 21, wherein said status between said first device and said plurality of devices is resolved by said first device evaluating each said information packet from said first device and any of said plurality of devices.

24. (Previously Presented) The computer system of Claim 21, wherein said distributed network management station comprises at least one of:

- plug-and-play capability of said first device;
- scalability of said first device; and
- self-healing capability of said first device.

25. (Original) The computer system of Claim 21, wherein said secondary device re-evaluating said master device due to a loss of communication with said master device.

26. (Original) The computer system of Claim 25, wherein said secondary device re-evaluating comprises questioning said master device for state or status.

27. (Previously Presented) The computer system of Claim 26, wherein said state or status of said master device comprise at least one of:

- a paused state;
- a crashed state;
- a transmission control protocol (TCP) disconnect and
- overall loss of master device.

28. (Currently Amended) A computer-usable storage medium having computer-readable program code embodied therein for causing a computer system to perform a method for fault management in a distributed network management station that comprises:

initiating a first device coupled to a network, ~~wherein said first device comprises at least one of a single processing element device, a computing system, or a blade type computing system compliant with a compact peripheral component interconnect (PCI) chassis;~~

determining a status of the first device as a master device of the network or a slave device of the network by:

broadcasting, from said the first device, an information packet ~~describing said first device to a plurality of devices coupled to~~ over the network, the information packet indicating whether the first device had a prior status as a master device, wherein said information packet helps define one of said first device and said devices as a master device for said network;

listening, at said the first device, for one or more responses to said the information packet from said one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master

or slave devices of the network, and a prior status of the corresponding second devices as master devices; and

resolving the status of ~~said~~ the first device as the master device or slave device of the ~~coupled to said~~ network based, at least in part, on any responses received from the one or more ~~second devices coupled to the network, wherein said resolving results in said distributed network~~ management station ~~having said defined master device being one of said first device and said~~ devices.

29. (Currently Amended) The computer-usable storage medium of Claim 28, wherein said first device initiates as a ~~secondary~~ slave device.

30. (Original) The computer-usable storage medium of Claim 28, wherein said information packet comprises a participating-device internet protocol (IP) of said first device.

31. (Original) The computer-usable storage medium of Claim 30, wherein said information packet also comprises a participating-device message authentication code (MAC) of said first device.

32. (Currently Amended) The computer-usable storage medium of Claim ~~28~~ 30, further comprises determining the first device is the master of the network when no responses were received to the information packet ~~wherein said information packet further comprises information regarding the previous state of said first device.~~

33. (Currently Amended) The computer-usable storage medium of Claim ~~28~~ 30, wherein said information packet additionally comprises information regarding a current state of said first device as a slave device of the network; and determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

34. (Currently Amended) The computer-usable storage medium of Claim ~~28~~ 30, further comprises:

comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second devices is not currently the master device of the network according to the received responses;
and

determining the first device is the master device of the network or a slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices ~~wherein said information packet further comprises information regarding a total system-up-time of said first device.~~

35. (Currently Amended) The computer-usable storage medium of Claim ~~34~~ 30, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices;

comparing the total system-up-times of the and the one or more second devices when the master device of the network could not be determined from the comparison prior status of the first device with the prior status of the one or more second devices;

determining the first device is the master device of the network or a slave device of the network according to the comparison of the total system-up-times ~~wherein said status between said first device and said plurality of devices is resolved by an evaluation of each said information packet from said first device and said plurality of devices.~~

36. (Original) The computer-usable storage medium of Claim 28, wherein said distributed network management station integrates plug-and-play capability of said first device into said network.

37. (Original) The computer-usable storage medium of Claim 28, wherein said distributed network management station integrates scalability of said first device into said network.

38. (Original) The computer-usable storage medium of Claim 28, wherein said distributed network management station integrates self-healing capabilities of said first device into said network.

39. (Currently Amended) A mechanism for creating a distributed network management station comprising:

a means for initiating a first device coupled to a network, ~~wherein said first device comprises at least one of a single processing element device, a computing system, or a blade type computing system compliant with a compact peripheral component interconnect (PCI) chassis;~~

a means for broadcasting, from ~~said~~ the first device, an information packet ~~describing said first device to a plurality of devices coupled to~~ over the network, the information packet indicating whether the first device had a prior status as a master device ~~wherein said information packet helps define one of said first device and said devices as a master device for said network;~~

a means for listening, at ~~said~~ the first device, for one or more responses to ~~said~~ the information packet from ~~said~~ one or more second devices coupled to the network, the one or more responses indicating a current state of the corresponding second devices as either master or slave devices of the network, and a prior status of the corresponding second devices as master devices; and

a means for resolving the status of said the first device as the master device or slave device of the ~~coupled to said~~ network based, at least in part, on any responses received from the one or more second devices coupled to the network, ~~wherein said resolving results in said distributed network management station having said defined master device being one of said first device and said devices.~~

40. (Original) The mechanism for creating a distributed network management station as described in Claim 39, wherein said first device initiates as a secondary device.

41. (Original) The mechanism for creating a distributed network management station as described in Claim 39, wherein said information packet comprises a means for participating-device internet protocol (IP) of said first device.

42. (Original) The mechanism for creating a distributed network management station as described in Claim 41, wherein said information packet also comprises a means for a participating-device message authentication code (MAC) of said first device.

43. (Currently Amended) The mechanism for creating a distributed network management station as described in Claim ~~39~~ 44, further comprising means for determining the first device is the master of the network when no responses were received to the information packet wherein said information packet further comprises a means for providing information regarding the previous state of said first device.

44. (Currently Amended) The mechanism for creating a distributed network management station as described in Claim ~~39~~ 44, wherein said information packet additionally comprises a means for providing information regarding a current state of said first device; and means for determining the first device is the master device of the network based, at least in part, on any responses received from the one or more second devices coupled to the network.

45. (Currently Amended) The mechanism for creating a distributed network management station as described in Claim ~~39~~ 44, further comprising:
means for comparing the prior status of the first device with the prior status of the one or more second devices received in the response to the information packet when one of the second devices is not currently the master device of the network according to the received responses;
means for determining the first device is the master device of the network or a slave device of the network according to the comparison of the prior status of the first device with the prior status of the one or more second devices ~~wherein said information packet further comprises a means for providing information regarding a total system-up-time of said first device.~~

46. (Currently Amended) The mechanism for creating a distributed network management station as described in Claim 39, wherein the information packet further comprises information regarding a total system-up-time of the first device and the responses indicate information regarding corresponding total system-up-times of the one or more second devices;

means for comparing the total system-up-times of the and the one or more second devices when the master device of the network could not be determined from the comparison prior status of the first device with the prior status of the one or more second devices;

means for determining the first device is the master device of the network or a slave device of the network according to the comparison of the total system-up-times wherein said status between said first device and said plurality of devices is resolved by said first device utilizing an evaluation means for each said information packet from said first device and any of said plurality of devices.

47. (Original) The mechanism for creating a distributed network management station as described in Claim 39, wherein said distributed network management station comprises a means for integrating plug-and-play capability of said first device into said network.

48. (Original) The mechanism for creating a distributed network management station as described in Claim 39, wherein said distributed network management station comprises a means for integrating scalability of said first device into said network.

49. (Original) The mechanism for creating a distributed network management station as described in Claim 39, wherein said distributed network management station comprises a means for integrating self-healing capabilities of said first device into said network.